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ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF DYSENTERY.

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As the season is approaching when dysentery is generally more or less prevalent, perhaps a few remarks on the treatment of this disease, from one who has had considerable experience with it, may not be unacceptable to the younger readers of the JOURNAL. I am aware that the subject has been very ably, extensively and almost exhaustively treated; nor do I propose to suggest any novel mode of treatment, but simply to state what, in my hand, has been followed by satisfactory results.

As dysentery arises from a variety of causes, and is frequently variously complicated, it is obvious that no exclusive or single mode of treatment (as has been recommended by

some authorities) is applicable to every case; but, to be successful, must be varied according to the symptoms, causes, age and constitution of the patient, and to the concomitant diseases, if any are present.

The epidemic form of dysentery, or rather that produced by epidemic influence, (for I do not know that there is any essential difference in the symptoms, except their greater severity, between the epidemic and other varieties), is the one I shall have chiefly in view in the following remarks.

The first summer that I practiced medicine, (in an agricultural community on the eastern shore of Maryland), the disease prevailed very extensively and in an aggravated form, few families escaping altogether, and in some families all, or nearly all, the members being affected. The symptoms were then—as I have always met with them since, to a greater or less extent in the disease—a frequent and urgent inclination to evacuate the bowels; the discharges being generally composed of mucus of a whitish, coagulated appearance, frequently mixed with blood, and sometimes with bile; sometimes (but generally before I would be called to the case) preceeded by feculent or bilious evacuations. Those cases in which a mucous character of discharges prevailed extensively, or exclusively, were generally the most painful and unmanageable, and I was soon led to look upon a free evacuation of blood in the early stages as a favorable symptom. Accompanying this character of the discharges, there would be tormina and tenesmus, more or less fever, thirst, nausea often, sometimes vomiting, pain in the back, scanty urine, and a dry skin. There was often tenderness of the abdomen, but seldom tumefaction.

In regard to therapeutics, venesection was seldom resorted to; and the few instances in which I did bleed were in persons of good constitutions, in the vigor of life, and where the fever ran high, and in these cases with much benefit. Let me here remark that in regard to blood-letting, I think the tendency, or *fashion*, (for there is a fashion in therapeutics,

as in most other things), is as much to its improper neglect at the present day, as it was too freely resorted to by the physicians of half or even a quarter of a century ago.

At the time of the epidemic under consideration, an excellent physician, then about eighteen years in practice, lived a few miles east of me, and another, who had been a practitioner thirty-five or forty years, a few miles to the west. Those gentlemen bled freely, and were very unfortunate in the results of their treatment I remember one family, after having lost two of its members under the depleting mode, in the third case sent for me. I did *not* bleed, and the patient recovered, though apparently as ill as the others. Though there are diseases in which I would resort to venesection, where many physicians of the present day would *not*, yet dysentery is not one of those diseases, except in peculiar circumstances. The disease often produces great debility, and is sometimes prolonged to several weeks, so that it is necessary to economize the strength of the system as much as circumstances will permit; and unless the inflammation of the colon and rectum is of a very active grade, we can generally succeed without it.

From the absence of the bile in the dejections, it was evident that the liver was in a torpid condition, and therefore an agent that would unlock it and enable it to eliminate its secretions was indicated. What could fulfill this indication better than mercury? I therefore generally commenced my treatment with a dose of calomel—eight or ten grains to an adult,—followed, in four or five hours, by one-half oz. or one oz. Ol. Ricini, if the stomach was not irritable, or the fever not very high; but, if this was the case, a saline; and in the event of nausea, an effervescing aperient was substituted. This almost invariably alleviated the sufferings, and frequently was sufficient to effect a cure. But if the disease was not conquered, then I continued the calomel in diminished doses: two grains once in two, three or four hours, combined with one-half or one-quarter grain of opium, and one to two grains

of ipecacuanha, with a view of alleviating the tenesmus and exciting the action of the skin, which, like the liver, is in a torpid state. This plan would be continued for twenty-four or forty-eight hours, when the castor oil would be repeated. When this had produced a free secretion of bile and of perspiration, in the great majority of cases, a cure would be accomplished; but sometimes an irritable state of the bowels would continue after the constitutional symptoms had subsided, as would be indicated by some tenesmus and inclination to stool, with very little discharge. In these cases, I continued the opium and ipecac, omiting the calomel, and substituting, sometimes, one or two grains of plumb. acet. to each dose. The local remedies generally of enemata of some mulcilage, as thin clear starch, in small quantities—about a gill—combined with thirty to sixty drops of laudanum, or its equivalent of sulph. of morphia two, three or four times a day. This was an excellent adjuvant in soothing the bowels by alleviating the tenesmus. I directed small injections, as they caused less irritation, were more likely to be retained, and therefore accomplished the object more perfectly. Warm anodyne, or stimulating embrocations to the abdomen, demulcent drinks, and a bland liquid diet, together with perfect rest, a pure atmosphere, and cleanliness, generally accomplished a cure. In convalescence, I seldom found it necessary to give tonics, or stimulants, though occasionally I had to resort to the latter in cases of great prostration.

During this, my first experience with dysentery, I treated just one hundred cases. Of this number, ten, or just ten per cent., died.

A singular circumstance occurred during the prevalence of this epidemic, which I have frequently noticed since, viz: that the negro race succumb to severe diseases much more readily than the whites. Of those I treated at that time, ten were colored persons; and although they had as much attention as my other patients, and as many comforts and facilities for recovery as many of the whites, yet of this number, five,

or fifty per cent., died; while of the ninety whites treated, but five, or five and six-tenths per cent., died. But among the deaths of the blacks, two were boys, brothers, ten and eleven years old, who had been much emaciated, but were progressing towards health, when their parents yielded to their desire for *green apples*, (which hung, in their view, on a tree by the door,) and after partaking freely of them, they had a relapse, and in a few days died.

Another epidemic—in 1851—occurred while I was in Burlington, New Jersey, and I saw no reason to modify the treatment used in the former epidemic, except that I do not recollect having bled in any case, having a much more luxurious and delicate class of patients to treat than formerly. I have known it to prevail epidemically in other years, but not so extensively, and never knew a year to pass without witnessing more or less of it.

I know that the remedies for dysentery are almost innumerable, and some are said to be unfailing; but I must be convinced of the rationale of their operation before I can have undoubting faith in their curative powers, even when endorsed by the high and respectable names that sometimes accompany them. This I have not yet understood. Such are opium, very large doses of ipecacuanha, neutral salts, combined with mineral acids, etc. If my idea of the proximate causes of the disease is correct, I do not comprehend how these modes of treatment can have such speedy and universally successful terminations. That the purgative and depleting effects of the salts would fulfill one indication, the sedative effects of the opium another, and the diapheretic and alterative effect of the ipecac, a third, there can be no doubt; but to treat severe cases by either of these modes exclusively, I should be reluctant to do, for none of them, singly, can fulfill all the indications, or produce all the effects required in the treatment of dysentery. Opium, though an indispensible agent in severe cases, I have seen used to a dangerous, if not fatal, extent, when almost relied on. Ipecacuanha is almost as essential,

but Icannot see the necessity of giving it in such enormous doses—one to two drahms—as a diphoretic, and as such is it chiefly, if not altogether, beneficial.

When dysentery arises in malarial districts, (where it is very apt to), and especially if it takes an intermittent or remittent form, the administration of quinia, in addition to the treatment already recommended, will be found very useful. Where the disease merges into the chronic form, I have found the Ol. Terebinth. and astringent enemata very beneficial.

FIVE CASES OF MILITARY SURGERY.

BY ISRAEL B. WASHBURN, M. D.,
Late Surgeon 46th Ind. Vol. Inf.

Case 1.—Samuel Clark, private Co. F, 28th Iowa Inft. Wounded while lying in quarters during the siege of Vicksburg. The ball entered the left buttock high up, passing downward and lodging in the perineum; it was extracted and dressed as usual with water dressings. Upon the sixth day secondary homorrhage occurred. After several ineffectual attempts at ligating the artery by a "Surgeon" present, the bleeding was almost immediately suppressed by the application of persulphate of iron. I have observed that surgeons very frequently suggest and practice the heroic when the more simple remedies would be entirely successful. However, I remember an instance of a different kind. After the battle of Champion Hill, Miss., an Assistant Surgeon attending the ward containing the amputations, applied the presulphate of iron in a case of secondary hemorrhage from the *femoral artery!* The patient died. Assistant Surgeon resigned and is now engaged in the laudable employment of an Insurance Agent.

Case 2.—Bernard M. Minch, private Co. G, 29th Wisconsin Vols. Wounded in the right arm in the battle of Port Gibson, Miss., May 1st, 1863. The ball struck about the middle of the humerus, shivering it very badly. Resection was performed in the usual manner, and about four inches and a half of the shaft removed. The patient received a flesh wound of the right hand at the same time; both wounds healed after the operation with scarcely a bad symptom. He was discharged *well* July 17th, '63. He was able to write with the crippled hand and arm the last I heard of him, which was through Dr. D. DuBois, Surgeon 29th W. V. I., Nov. 24th, '63.

Case 3.—Daniel Cobb, private Co. H, 46th Ind. Vols. Wounded in the battle of Port Gibson, May 1st, '63. The right humerus was fractured in its upper third by a conical ball. Resection of the head and three inches of the shaft of the bone. The shock from the wound being very severe and reaction not being perfect, the wound did not do well, the suppuration being profuse after the fourth day until the death of the patient, which occurred the twelfth day. Instead of leaving those most severely wounded near the field, they were moved two or three times, thereby preventing the union of fractures, and causing more than one case of fatal secondary hemorrhage.

Case 4.—Wm. H. H. Sales, private Co. C, 34th Ind. Vols. Wounded May 23rd, '63, during the investment of Vicksburg. Fracture of the humerus. Resection—the head and three inches and a half of the shaft removed. I saw the patient the 27th day after the operation, the wound was then nearly closed, the pus and granulations healthy. He was sent to General Hospital the 34th day, at which time he thought himself "almost well." I never learned whether the limb was of any use to him or not after recovery.

Case 5.—Henry C. Cruger, private Co. H, 34th Ind. Vols. Wounded July 2d, '63, by accidental discharge of his musket while his fore-arm was resting on the muzzle. The radius

was greatly shattered in its middle third, the muscles lacerated and powder-burnt. Resection—three inches and a half of the shaft was removed by Surgeon R. B. Jessup, 24th Ind. Vols., the ulna left intact. The wound was treated with cold water dressings and seemed to be doing very well until the third day, when the patient had a chill which every Surgeon present supposed would be followed by pyemia. Quinine was given freely, and the wound carefully syringed with dilute alcohol, which treatment was continued two days. The patient seemed entirely free of fever after that, and whisky and tincture of iron were administered instead of the quinine. A yeast poultice was applied and frequently changed, but the benefit of it was considered very doubtful, and water dressings were re-applied, the patient gradually improving.

Eighteenth day. He was sent to General Hospital, at which time he was doing well, the wound healing rapidly and the patient appearing to be entirely out of danger.

CHRONIC DIARRHŒA.

BY GEORGE D. WINCH, M. D.,
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This very frequent disease of the army (by the discharge of troops) will be distributed through many parts of our country. Its frequency and extreme obstinacy should call forth the experience of those who have been previously associated with this disease sufficient to learn its nature and pathology. We will commence with the *post mortem* appearances. The STOMACH, which is described by many as being diminished in size, we have always found of normal bulk, even in those protracted cases where the diminished dimensions is said to be peculiarly frequent. The mucous membrane, generally dark

red, seldom softened or contains ulcers. The DUODENUM and JEJUNUM sometimes exhibit appearances of an inflammatory character, but generally nothing decisive. In the ILEUM the change is more noticeable, the whole extent o' this is altered, but a gradual increase from the beginning to the ileo cæcal. valve. The mucous membrane is of a dark or reddish-brown color and thickened. The vessels seemingly injected to their utmost fulness. The solitary follicles and agminated glands participate in the enlargement; but we have not succeeded in finding ulcers. The exhibition of the mucous membrane of the COLON is more conclusive of the true pathology. It is a dark red color, thickened, the solitary follicles enlarged. In some cases there is no ulceration to be found, and I confess I cannot diagnose this class from those in which on examination are found large ragged ulcers. In the first class there will often be extreme pain, the passages very frequent and fetid, also the inflamed membrane seems as susceptible of pressure as the ulcerated one. But in the majority of cases the mucous membrane is ulcerated, disorganization increasing from the beginning to the end. We have seen the whole length of the descending colon present one ragged erosion on its mucous surface, and again the membrane of the whole track of the COLON penetrated by a large number of ulcers from one-half to one inch wide, and one or two inches in length, their edges being raised by a narrow, gray colored lymph deposit.

The fatty LIVER is of common occurrence, especially in cases of long standing, and often the lower portion of the right lobe is so disorganized and softened as to be torn or crushed without force; this last is the effect of congestion, judging from the appearances of this organ in cases of shorter duration. The SPLEEN seldom enlarged, but nearly black and softened, and when increased in size the patient has had the symptoms of remittent fever. KIDNEYS, in some cases, appear normal, in others, enlarged and of a bloodless appear-

ance. MISENTERIC GLANDS enlarged. The PERICARDIUM often containing from two to four ounces of fluid.

CAUSES.—It is an easy task to enumerate many which are known to be common predisposing and exciting causes of this disease; but it is more difficult to trace in each case its own peculiar cause, which would be of great utility both as to therapeutic and dietetic measures. A want of vegetable diet is a common cause, and if not the most frequent, its effects are the most protracted, and difficult to overcome. The patient must necessarily be fed on vegetable diet a sufficient time to change the condition of the vital fluid before a permanent cure can be established. Crowd Poisoning, although no doubt often predisposing, is less frequently the cause of this disease than of camp fevers, and when the patient goes into the hospital or is returned home, he is no more exposed to this loathsome agent. The same can be said of malaria. Occasionally this disease is the continuation of an uncured acute attack.

SYMPTOMS.—Often this disease commences very insiduously, not even awaking the patient to his danger until his case is critical, and then causing no alarm. This class is generally associated with a strong scorbutic taint; there is much debility, both mental and muscular, inattention to surrounding objects, and the condition of his person, passing from two to six liquid stools daily, without pain. Again the patient may be attacked with all the symptoms of acute enteretis, chills followed by fever, frequent and painful discharges, tenderness on pressure, and these symptoms passing gradually into Chronic Diarrhœa. But this last is not of common occurrence. More commonly the patient has symptoms of (commencing) adynamic fever, as slight chills, headache, aching and pain in the limbs, loathing of food, liquid stools, more or less frequent. The countenance is dark, and the icterode hue so often displayed by the malarial influence is frequently present, skin dry and reminds the physician of a convalescent from an eruptive disease. Pulse from 80 to 90, seldom above

the latter until late in the disease. In some cases there are rhumatic pains, mostly in the shoulders, and cardiac irritability, producing palpitation. Sometimes there is a craving for food, raw and indigestible vegetables are devoured, doing much injury. This is where the scorbutic taint predominates and a proper vegetable diet is found to be a dietetic measure of great utility. Tongue large and flabby, may present a white or yellowish-white coat, often fissured, but at this stage moist. As the disease advances, emaciation becomes apparent, abdomen flat or concave, and a gurgling is felt and heard by pressure. This gurgling sound can often be produced the whole length of the colon. It is as surely found in the right iliac region as at other points in the large intestine. Pulse becomes more frequent and feeble, but never rises to that frequency so often seen in camp fever, but is very weak. Stools increase in frequency, become dark and fetid, and much tenesmus. In many of these cases that prove fatal, the last three or four days the number of stools and tenesmus will equal those of acute dysentery, and these are the cases where the mucous membrane of the DESCENDING COLON and RECTUM is found disorganized by inflmamation and ulceration. No delirium, the mind clear, the patient answering questions till the last. (A strong contrast to camp fever.) The action of the heart grows weaker and weaker until life is extinct. But the patient may recover after all reasonable hope has left the physician. When the pulse is a mere thread in size and no force, by a judicious use of stimulants the vital energies may be brought to that point where proper remedies and nutritious diet will save the patient. A slow and protracted convalescence, with many a relapse of the diarrhœa, must be expected. Recovery is rare where the pulse reaches that extreme feebleness with the adynamic symptoms last described. When it is to take a favorable course the tongue commences cleaning. Where it has been long covered by a dark thick coat, it often commences by throwing off flakes from the posterior and central portions. Pulse stronger and less frequent; skin loses its

roughness and becomes moist and of a more natural color. The stools may not decrease in frequency immediately on amendment where they have not passed but from four to six daily, but when they have been frequent and painful they become less frequent and the pain subsides. Urine will at times be small in quantity, but by the proper use of diuretics the patient will pass the normal amount, while its specific gravity will in very rare cases be very light. In a large proportion very slight alkaline reaction, and we have found deposits of urates, oxalates and phosphates.

TREATMENT.—There is no disease that calls for a more steady and persistent course than Chronic Diarrhœa. Remedies should not be abandoned because of not relieving symptoms in a short time. If he has been exposed to malarial influence he should be removed where he will no longer receive this impairing noxious agent. If the scorbutic taint appears, a judicious and persistent course of vegetable diet should be immediately commenced, with the use of lemonade or citric acid drinks. Oranges, properly used, are grateful and beneficial. The same may be said of apples baked. Animal diet is also necessary to keep the vital powers above that point where the reparable process fails. Beef tea and essence, and chicken soup are the most common and useful articles. Rice in the above preparations is a useful adjunct. Milk must not be neglected, we have found it of great utility where there was not much desire for food, giving very small quantities often. By properly dividing the doses it seldom produces indigestion, and while changing from one article to another of the above preparations, milk can be perseveringly used. The articles of diet should be ordered by the physician, changing them as the circumstanses of the case require. Frequently beef tea, taken with relish, at first, soon produces nausea and vomiting. It is then that some of the other preparations mentioned should be used in its stead. *Never* continue an article after it produces the effect last mentioned. The quantity should also be prescribed.

Mutton chop and soft boiled eggs should be tried, and if not producing indigestion or irritating the bowels, should be continued.

The therapeutic measures of this disease are of far less importance than the dietetic. It is only by a judicious use of tonics, chalybeate astringents, opiates and alcoholic stimulants that benefit can be received. Opiates should be given to quiet pain when there is tormina, in repeated half-grain doses, until it effects its object or when the patient is wakeful and cannot sleep in one grain doses at bed-time to produce sleep, and that should limit the use of anodynes, except by injection, of which we will soon speak. There are many preparations that are lauded, but we will speak of those only which we have used. Tr. Ferri Chlo. in doses of 10 to 15 drops every three hours, is often well borne and very useful in connection with opiates, when they are necessary, or alcoholic stimulants if there is prostration. This has proved a more useful remedy in our hands than Sul. Cupri. Sul. Ferri. The liquor Ferri Pernitratis we have never used, but many Surgeons of much experience with this remedy inform us it is second to none. If any tendency to periodic exacerbations, Quinina should be used. Mineral acids are useful, especially in the scorbutic variety. Give Aromat. Sulph. Acid 10 to 15 gtts. three times daily. If there is hepatic derangement the Nitro-Muri. Acid is more desirable. Tannin, Catechu, and other astringents of that class are of no utility, on the contrary, do injury by irritating the stomach and producing hepatic congestion.

Alcoholic stimulants should be given under the same circumstances as would point to their use in other diseases. They should not be given recklessly; but in cases as described where the system is becoming prostrated below that point where the reparable process can be maintained, alcoholic stimulants should be assiduously employed. Prescribe a certain amount; watch the patient and vary the quantity according to its necessity and effect. *Never* leave this part to the

judgment of the nurse. In some cases where depression and prostration are so far advanced as to shut out all reasonable hope of recovery by this course, the patient will commence to mend, and immediately, aided by supporting diet and tonics will soon begin a slow convalescence.

The importance of suitable enemata must be apparent when the pathology of the disease is carefully reflected upon. That the lower portion of the *colon* and *rectum* are generally more seriously diseased than the other parts of that gut, is no longer an uncertainty. That fact clearly indicates their use. Among a list of remedies highly recommended, I much prefer Cupri. Sul. and Tr. Opii, used separately or together according to circumstances. Sul. Cupri. grs. iv., Tr. Opii m. xx Acacia pulv. ʒ ss. Aq. ʒ iv, m., used morning and evening, seems admirably adapted to those cases when the signs and symptoms denote iritation, inflamation and ulceration in the lower portion of the gut. Sulphate Copper will not produce the pain, and will be much longer retained than the Nit. Silver. From these injections, judiciously used, there will be derived much benefit. This class of local applications deserve more notice than is given them. By their use the pain will subside, evacuations become less frequent, and all the local symptoms improve.

To furnish a proper combination of hygenic and dietetic measures, alcoholic stimulants, chalybeate preparations, quinine and local applications, requires much care and attention of the physician.

Nux vomica has been extolled by those who have had experience with the remedy. I have never used it but in that class of cases characterized by no pain, much debility, both bodily and mental, it would, (judging from its action in other cases,) be very beneficial. A large majority of cases will, if judiciously treated, recover although it may require weeks or even months.

SELECTED.

CORK AND ITS USES.

By JOHN R. JACKSON.

Amongst the many materials or productions in use in every-day life, cork may certainly take a position in the foremost rank. We all know something of cork; from our earliest childhood we have been familiar with it. It is a substance that has retained all its ancient uses, as well as its importance and value, from its earliest history down to our own day. Unlike most other things, it has not, even in this age of application and invention, found a rival. True it is we have "corky" substances in abundance, produced in almost every country; but neither the productions of nature nor the productions of mechanical skill have produced an efficient substitute for cork, one that could take the place of this valuable bark, or even go side by side with it.

Considering the great quantity of cork that is consumed even in this country alone, as well as the great amount that is wasted, the quantity of bark annually stripped in the cork-forests is an operation of no little importance. The slight value many individuals place upon cork, on the whole, does not lead us in the least degree to estimate its real importance, which, in a commercial point of view, is of no trifling nature.

There must needs be a large quantity imported; for amongst wine merchants, bottled-beer merchants, or soda-water makers, a cork is never used a second time; but then what an immense bulk would go to make up a ton of cork, and yet it is by weight that the imports are estimated. There is an immense consumption, and the demand of late years has almost exceeded the supply. The annual quantity imported into this country averages about 5000 tons.

Of the early history of cork, it is very clear that it was well known and in use amongst the Greeks and Romans. Theophrastus distinctly alludes to the fact, now so well known, that the continual barking of the trees tends to improve the

quality of the cork. With the Greeks it was called "Phenos," while the Romans knew it by its present specific name of "Suber." Though cork was probably used in very remote times for similar purposes to those of the present day—that of stoppers for bottles amongst the rest—this, however, does not seem to have been its common or general use, inasmuch as we find that vessels of that period were frequently closed by earth, clay, and other similar substances. Stoppers of cork, or "corks," as we now call them, appear not to have been generally introduced till some time in the latter part of the sixteenth century; from that period, however, its use has been getting more and more universal in all parts of the world.

Before the introduction of cork, or its general adoption for bottle-stoppers, various articles were resorted to for this purpose. We are told that apothecaries secured the contents of their phials with stoppers made of wax, which must have been a somewhat tedious process. But even in our own day, a similar custom prevails in many parts of Europe; for with many of the Italians and Neapolitans, for instance, the practice of securing their wines, by pouring oil into the mouth of the bottle before tying it down with skin, is still very prevalent.

Before entering into the uses of cork, however, let us pay a short visit to the forests from whence it is obtained, and trace its progress from its natural position to that of its ultimate application.

Cork, as we all know, is the bark of a tree, though commercially miscalled "corkwood." It is produced by two species of oak, *Quercus suber*, L., and *Quercus occidentalis*, hence called the "cork-oaks." These trees grow abundantly in large forests in Spain, Italy, the South of France, and Northern Africa, the latter species being found alone on the Atlantic side. This species is also peculiar, from the fact that it ripens its acorns in the second year.

In general appearance the cork-oaks differ little from the common oak, except, perhaps, that they do not attain to so large a size. There is also a slight difference in the form of their leaves—those of *Quercus suber*, L., being more lanceolate, and the margins not so deeply sinuate; the acorns are also somewhat longer and more tapering in form than those of the common oak.

The cork-oak does not require a rich soil; but, on the contrary, it seems to thrive best in poor and uncultivated ground.

To collect this cork, incisions are made longitudinally and transversely in the bark of the living tree, the instrument used being a kind of axe, the handle of which terminates in a wedge-shaped form. After the bark is cut through, it is beaten to loosen it from the liber or inner bark, the wedge-shaped axe-handle being inserted to lift the bark from the trunk. The cork thus removed usually varies from three-quarters of an inch to three inches in thickness. The next operation is to divide it into pieces of a uniform or convinient size, and to flatten it, each piece having, of course, a similar curve, corresponding with the trunk of the tree from whence it was taken. For this purpose, the pieces are placed in pits and covered with water, and then pressed flat with heavy stones. The well known charred surface upon these cork slabs is caused by the application of heat at an open fire, after the steeping, for the purpose of contracting the pores. The pieces are afterwards bound up in bales, in which form they appear in the market. In removing the cork from its paternal trunk, care has to be taken not to injure the inner bark next the wood, else it would affect the second crop of bark, and perhaps injure the tree. This operation of stripping the bark, if dexterously and carefully performed, has, as we have already said, no detrimental effect, either upon the growth of the tree or the rapid formation of the new bark; but, on the contrary, the tree is said to grow more hardy and vigorously. The first crop of bark is usually taken when the tree is about twenty-five or thirty years old, but the crop is of less value than that of any succeeding gathering, as it is harder, very uneven, and more full of holes. The second gathering, however, which is in about eight or ten years after the first, is still of an inferior quality. The third crop, collected in about eight years after the second, is usually the first marketable cork—that is, the first crop that is fit for cutting into bottle corks. When the trees have attained to this age, so that three crops have been taken off, they usually yield a supply of good cork about every seven or eight years; and its quality improves, as well as the quantity enlarging, at each successive gathering. The season chosen for the cork harvest is usually the month of July or August.

It will be seen by the foregoing that the quality, and consequently the commercial value of cork is materially affected by soil, length of time allowed in growing, and also of care in collecting. There is as much difference existing in the quality of cork as in most other articles of daily use. The finest

kind should be compact and firm, but at the same time not hard, of an even texture or grain, and of a slightly pinkish tint. This kind of cork is generally selected by wine merchants for bottle-corks; while the coarser kind, which is always more porous, full of small holes, and perhaps punctured by insects, serves for bungs for casks and for the various other applications to which cork is put in a cheap form. When cork is required to be thick, it is usually found coarse, as it must be allowed a longer period of growth to promote its thickness. The charring or singeing process to which this kind of bark is frequently subjected, for the purpose of filling up the pores and making it impervious to fluids, has also a detrimental effect, as it secretes an empyreumatic oil, which is given off and frequently taken up by the liquids it confines; but there is no doubt that care is taken in the selection of these corks, and methods adopted for the prevention of this chemical contamination, as much as possible. This operation of charring, to which all cork was formerly subjected for the purposes we have just mentioned, has been partially succeeded of late by that of boiling the cork and afterwards scraping the surface. This is said to improve rather than to deteriorate the cork, it being more effectual in filling up the pores.

The uses of cork are so numerous, and its application so continually increasing, that the supply of late, as we have said before, has not been sufficient to meet the demand. It is not our intention to enumerate all the uses to which this most useful article is put—indeed, it would be unnecessary to do so, so well known as they are to all; but there are a few modern uses or applications to which cork has been found suited in recent inventions, and which are, perhaps, among the "things not generally known;" but these uses generally consume waste or refuse cork, such cuttings as were formerly considered of no value.

The new elastic floor-cloth, now so well known as "Kamptulicon," is a combination of caoutchouc and cork; and this is but one instance showing that cork, treated with other substances, can be made into a really useful article. Cork-dust has been used successfully with india-rubber in the process of vulcanizing, and to so fine a powder is it reduced for this purpose, that india-rubber so treated is capable of being moulded into the most delicate forms. Another recent application of cork is for stuffing beds, and we believe this is now done to a large extent.

A large Cork Company, lately established in London, and owning large forests in Portugal, have recently imported the virgin cork into this country, with the impression of its becoming useful for rustic garden-work. It is brought in very large pieces, and, from its rugged, uneven surface, which is frequently covered with lichens, together with its portability and its porous nature, which makes it capable of retaining moisture, will no doubt cause it to be much used for such purposes.

Though the bark of the cork-tree contains a considerable amount of tannin, it is not in general favor among tanners, on account of its not imparting the required "bloom;" and for this reason it is seldom used alone, but is mixed with English oak bark. The inner bark is that which is used for tanning purposes, the outer bark being quite devoid of any of the required properties. The removal of the inner bark causes the death of the tree; and it is chiefly from Sardinia and some parts of Spain, where the trees are very abundant, that it is imported for this purpose. The quantity of tannin, as well as the color of the bark, varies much, according to the district from whence it is obtained. The Sardinian bark is thicker and of a deeper red color than any other.

To return to cork itself and its more common applications, we find that there are two sorts or qualities known in commerce, called respectively white and black cork. The white, which is chiefly produced in the south of France, is the best, as it is smoother, of a more even and finer grain, and freer from holes and knots.

The operation of cork-cutting is one requiring great dexterity and neatness, and is carried on to a great extent both in France and England, though, as might be supposed, the French surpass the English in this art. Machinery has been tried for the purpose of cork cutting, but all is now cut by hand. Considering the difficulty, with which we are all acquainted, of cutting a clean surface to cork, it is surprising to see the rapidity with which the workman turns out a perfect cork stopper from the little square pieces furnished to him. The knife used for this purpose has necessarily to be very sharp, as well as being very thin; the blade is broad, and when the edge has become dull, it is quickly sharpened on a very fine-grained stone. The bench or tube at which the workman sits has a ledge round it to prevent the corks falling off. On the Continent, a notch is made in the edge of the bench to place the back of the knife in, to prevent it from

slipping. Thus the edge is uppermost, and the knife has to be guided slightly while the cork is pressed against the edge, and so dexterously turned and rounded to the required form. All the corks thus cut are thrown into a basket to be sorted, which is usually done by women and boys.

The great importance of cork as a commercial article has been the cause of experiments being tried for its introduction into the Southern States of North America. It is, however, some years since the American Government tried this plan of naturalization, for which purpose large quantities of the acorns were imported from the south of Europe. More recently, we learn, from Sir J. W. Hooker's last Report on the Royal Gardens, Kew, that steps are now being taken by the Colonial Government of South Australia to introduce the cork tree, and a number of young plants have been raised at Kew expressly for transmission to that colony.

We sincerely hope that these efforts to establish a tree furnishing so useful a product as cork, in a colony where it would become a valuable addition to its commerce, as well as adding to the supply, which, at the present increasing rate of consumption, is much to be desired, may be crowned with success.—*American Journal of Pharmacy*, from *The Technologist.*

EDITORIAL AND MISCELLANEOUS.

DR. BRAINARD'S ADDRESS BEFORE THE AMERICAN DENTAL ASSOCIATION.

Gentlemen :

It gives me great pleasure to meet here the members of so honorable and useful a profession as yours. The profession of Dentistry is one of very modern origin, and is that branch of the medical profession which owes its development and perfection most essentially to our own country, and is indeed, I think I may say, the one branch of the profession in which we Americans can claim especially the pre-eminence. To be

an American dentist is a recommendation in all the principal cities of Europe, and although the medical profession in general, and the surgical department especially, has an honorable position in the literature and among the profession in foreign countries, it can hardly be said to have a claim to the title of any pre-eminence.

I have said that your profession was of comparatively recent origin. It is almost, I think, within the memory of many persons here present when it was regarded as a merely mechanical operation, little better than the higher branches of mechanical employment. Step by step it has developed itself to a degree that, in perfection, in usefulness, it does not in my opinion, rank second to any of the single branches of medical or surgical science, [applause]; so that at the present day, to be without a dentist would be to be without one of the essentials of civilized life. [Renewed applause.]

Now, in speaking of its having a mechanical origin, I do not intend anything disrespectful to it. My own especial branch of the profession is surgery, and, I might say, a part of surgery; and it is not very long since surgeons, as a class, occupied a position far less honorable and important than that occupied by dentists at the present day. In the middle ages in Europe, so called, or rather in the latter part of the middle ages, from the fourteenth to the end of the fifteenth century, or thereabouts, surgical operations were performed by barbers. There was no distinction between those that performed a surgical operation and those that cut hair, and curled hair, and powdered hair. The duty of the surgeon was considered to be to perform an operation when he was directed, and as he was directed by a physician, and, when he had performed the operation, to retire and leave the case to the physician. And it happened, after a certain period of time, that these operators acquired a certain amount of knowledge beyond the immediate needs of operating, and were called upon to advise about operations, and about the treatment of cases after operations. And this was

considered a great innovation upon the profession. It was considered something outrageous and disgraceful to the profession; and the man who should have consented to meet a surgeon in consultation would have been expelled from the faculty for consulting with a quack. I have in my library a work published by the President of the Faculty of Medicine, in Paris, entitled "*The Brigandage of Surgeons*," setting forth that they were asserting claims which, if allowed, would be the destruction and disgrace of the medical profession.

This comparison I bring forward for the purpose of sustaining the assertion that I make, that the difficulties under which the dental profession labors are nothing new. By speaking of the difficulties under which you labor, I mean this: the difficulty and length of time which it has taken for the honorable, and educated, and competent men of that profession, to assert and maintain full equality in professional standing with members of the medical profession who practice other branches of it. That difficulty has existed in regard to every particular branch of the profession that has at any time been embraced by any particular class of men, and is not peculiar to the dental profession. It results from that deep seated prejudice, for I can call it by no other name, that has existed from the earliest times and is inherent apparently in the nature of every profession and that is to resist innovations or changes in regard to the doctrines or the practices of that profession. This peculiar aversion to changes results from the nature of professional education, and is one of those things that is treated of by Lord Bacon in his *Novum Organum*, under the name of "Idols of a Class," or those things which prevent members of a particular class from seeing the truth in regard to their own profession. It is, and has been, one of the great obstacles to the progress of the medical profession. It is an obstacle which at the present day is partially, but only partially, overcome. It is the thing which has prevented a large number of men of genius and industry in the profession from embracing and following out the study

and practice of a particular class of diseases, in such a way as to have perfected our knowledge of the nature and treatment of such diseases.

Now, the principle that I wish particularly to assert here is this, that the medical profession, in order to be most useful, in order to acquire its due influence over the community, in order to perfect its knowledge of the nature and treatment of diseases, must adopt a special course of study; each individual member embracing that course which he judges on the whole to be best adapted to his faculties, and leaving out to a certain extent others for which he has no qualifications. I advocate special studies and special practice; and, although the words have been somewhat discredited, I advocate "specialties" and "specialists."

Now, I undertake to say that the very great opposition which this doctrine has met in the profession, is not founded upon reason or justified by the experience of the profession. It is an opposition which is working to the disadvantage of the profession as well as the public, and to the manifest disadvantage of a very great number of the individual members of the profession; and therefore I wish to insist a little upon the point.

What are the natural divisions of the science and practice of medicine? Is there no natural division? I hardly think that any one would be so bold as to assert that there are, and ought to be, no natural divisions. For a long time, when the science of medicine was in a very rude and imperfect state, the members of that profession did study and practice all its branches; and in the older works on Surgery, Pharmacy and Chemistry were as much treated of as the operations of surgery. Still, even at that time, there was the commencement of division, and the first was into Pharmacy, Surgery and Obstetrics. The next division which came was into Medicine and Surgery, Surgery being, as I have stated, the mechanical application in the manner already indicated. At a later period, there commenced to be apparent the distinction be-

tween the Obstetrical department of the profession, and the separation between Pharmacy and Medicine was accomplished entirely. By degrees the distinction between obstetricians and medical practitioners came to be recognized in particular localities, in large cities especially, to a very considerable extent; so that medicine, towards the middle of the last century, might be said to be divided into Pharmacy, Medical Practice properly so called, Surgery, and Obstetrical Practice; whilst yet it remained true in regard to the greater portion of the civilized world—the country in general, in America as well as in Europe—that the larger number of practitioners continued to practice all tis branches, to collect and prepare their own medicines, to practice Pharmacy, Surgery, and Obstetrics. And at the present day, this is the case with a very large part of the profession throughout the civilized world.

Now, it is manifest—all experience and reason show—that men who practice medicine in this way practice it only in a rude and imperfect manner; that they neither understand Pharmacy, nor Medicine, nor Obstetrics; that, from the nature of things, they are incapable of acquiring skill in any one of those branches; that it is absolutely necessary, in order that there should be any progress in regard to the science or practice of medicine, that some of these should be excluded, and others proceeded with especially, by each individual member of the profession.

Let us examine the question for a moment. The Dentists, as a body, have, according to my own knowledge and observation, perfected the mechanical means of performing operations beyond what has been done in any other branch of the profession. They are better mechanics than the Surgeons, and their instruments for accomplishing the different objects which they have in view are more numerous and better suited to their purpose than are the instruments of surgeons. Now this is essential to the proper performance of dental operations. And how this has happened? It has been simply that there have been

dendists, as a class, who have devoted their attention to that purpose; and we as surgeons never could have invented or perfected these instruments, and consequently could never have perfected dentistry. And that division of labor is a thing which, at the present day, is manifestly necessary, and which no one now disputes.

In regard to surgical instruments, there are two departments in which they have been singularly perfected. The one is in regard to those instruments which are used for crushing urinary calculi, which are the most admirably adapted to their purpose. How did that come about?—Three men of genius at the same time happened to devote their whole attention to that thing—the crushing of stone—and they especially perfected those instruments. And without that perfection of these instruments, the crushing of urinary calculi must have remained forever, as it had up to that time, a mere phantom floating in the mind without any practical application whatever. Therefore it was necessary in this particular that there should be special studies. The other branch in which I consider the mechanical means to be wonderfully perfected, is that regarding instruments for operations upon the eye. These instruments have been brought to such a degree of perfection, of delicacy and accuracy, that they are capable of accomplishing things almost inconceiveable, and accomplishing them regularly, constantly, and without difficulty or danger. Now, how has this happened? It has happened in the same way; there have been a class of men who have devoted their attention to that subject exclusively, have thought of nothing else, have worked at nothing else but the perfection of means for the accomplishment of that which they saw before them to be done. But when you come to other things that have not been made specialties, the condition of our science is singularly rude and imperfect. There is nothing in our science at the present day which has the slightest claim to be respectable apparatus for the treatment of fractures. Particular individuals, by the

attention which they have paid to it, and by an excess of superior mechanical talent or ingenuity, have been able to accomplish with the instruments which they use a considerable degree of success, but there is no instrument for any given fracture that can be mentioned, that can be taken by a person of ordinary good education of the profession and put upon the member in such a manner as to accomplish any perfect result. The greater number of the instruments which are used in the profession for fractures of the leg and called "fracture boxes," are not anything better than dry goods boxes, [applause,] and simply serve to accomplish the result of concealing from the surgeon the position in which a limb may happen to lie. [Renewed applause.] What is the reason of that? The reason is, that there never has been as yet any instance that a man devoted himself to fractures as a speciality, and nothing else, and this is the one branch in which a specialty is most needed. They are the species of accident which are the most frequent, and which disable a man more than any other, and entail untold miseries upon him if unskillfully treated; but the instruments for the accomplishment of this purpose never will be reduced to any great perfection, until it shall be known that the devoting of time and talents to one subject leads to honor and not to being partially thrown out of the profession. [Applause.]

If I should be unfortunate enough to meet with a fracture of the jaw, the first thing I should do would be not to send for a surgeon at all. I should send for a dentist. [Cheers.] They have directed their attention to the mechanical means and apparatus necessary for holding the jaws in their place, to such an extent, that they are better qualified to make them than surgeons are as a general thing, and, perhaps I might say, more than any surgeons are.

I might go on and point out to you that with regard to no one thing about them are the instruments used by surgeons, the best adapted to their purpose.

We are disputing, at the present day, all over the world

what kind of sutures are the best to use. A great many of our instruments for the purpose ligating arteries and performing similar operations, are singularly rude and imperfect, and their imperfection is only remedied by the skillful use of the fingers of the surgeons.

How is this to be remedied? It is to be remedied, gentlemen, by special study; by the profession changing its views upon that subject, and saying to the young men, when they are entering the profession and when they are about to leave the schools, that it is better for them to devote themselves to some particular branch of the profession and try to understand it. I often have young men from various parts of this country, who are here to visit the west for the purpose of locating themselves in their practice. They very frequently come to Chicago, and we are always glad to see them. We are very proud of our city, and if you want to get into the good graces of any Chicago man or woman, you have nothing else to do but to tell them it is a nice place. [Laughter.] But these young men come here and they say: "What kind of a place is Chicago for a professional man?" Now that is a very hard question to answer, because politeness does not permit me to ask another question. I could say to the young man, that if you know any one thing better than the generality of the profession, it is a good place for you; but if you do not, it will be a bad place for you. And for those young men who are incapable of applying their knowledge in such a way as to earn their daily bread, incapable of using their knowledge for the benefit of any particular class of men, so as to make it desirable for them to call upon them, Chicago is not the place. That is the difficulty under which members of the profession labor when they would enter into practice.

How is this to be remedied? It is to be remedied, in the first place, by acting upon public opinion. The profession which listens with leaden ears to the propositions which come from members of it to change the time honored usages to

which it is subjected, is sensitively alive to intimations which come from the people who employ them. Public opinion in this country is law, and in order that the laws be made good, public opinion must be enlightened. Individuals are powerless, but ideas are irresistible; and the way to remedy it is to take the idea or fact that in order to make the profession useful and powerful, it must be developed and perfected in all its branches, constituting each one of these branches one body, each part of which co-operates in its proper sphere and most useful manner in advancing the interests of the whole profession. [Cheers.]

Now, in saying that I am in favor of special studies and practice, in that way, I do not commit myself to anything; and the profession won't regard this as anything but a "glittering generality." Therefore, I state that I think there ought to be Dentists to attend to the teeth, Oculists to attend to the eye, Aurists to attend to the Ear, and special Physicians to attend to diseases of the heart and lungs and make the physical examinations which are so difficult, and a special class who will be able to use the microscope for special examinations, that there should be not only practitioners of obstetrics, but those especially devoted to different branches, I mean that the incapable obstetrical practitioners never should be allowed to use instruments; that there should be men qualified for that. And then in regard to surgery, that it should in addition have a number of branches. That in these there should be one branch devoted especially to the treatment of fractures. That there should be another branch devoted to the treatment of tumors, without absolutely circumscribing these departments by definite lines at the present time. When that is done, then the profession will cease to occupy the principal part of the time in its meetings or associations with quarreling with quacks. The man who is thoroughly accomplished in any particular department of his profession, is very little troubled by quacks. [Applause.] Then the public will come to know the usefulness of the profession.

The dental profession, at the present time, is not consulted in one case in a hundred, or one in a thousand of those which require the care of a dentist. That is because the medical profession is not educated to the proper standard, and does not tell these people as they ought to do, that in cases of difficulties about the teeth, they should apply to a good dentist.

The same is true in regard to Surgery. There are operations enough that ought to be performed, in every populous county in the State of Illinois, and which are not performed, to give employment to all the surgeons in those counties. They do not know that there is any man who applies himself to that particular kind of disease, and when they look around for information they look to that particular kind of advertisements in the newspapers; and you know what kind of information they get there. [Laughter.] I repeat, then, that the way of progress in the medical profession is in the way of special studies.

How is this to be brought about? I would not have you to suppose, by any means, that there should be a special school for every department of medicine and surgery. On the contrary, I would very much prefer that there should be no divisions whatever. And if I might be permitted to express an opinion upon a subject which may be delicate, it would be an opinion with regard to the dental profession, that they had better not be separated from the medical profession. I think it would be better for them to receive their education in the same schools and to the same extent as other members of the profession. And I think that in order to effect their education there ought to be and will be, perhaps not in my day, but there will be professorships of diseases of the teeth in every respectable medical school in Christendom. [Cheers.] What is taught at the present time in most medical schools in regard to teeth, is the order and time of dentition; and then, in case the child is sick during that period, that the gums are to be lanced. [Laughter.] In some schools there is a little advance upon that. But there is no medical school, so far as I

have any knowledge, where the diseases of the teeth and the causes which produce them, the means of obviating them, the irregularities of the teeth and the means of correcting them; the best thing to do in case of any particular appearances of the teeth; I am not aware that in any institution, even to that extent, it is properly taught.

Of course there must be colleges of dental surgery, so long as dental surgery cannot be learned elsewhere. This is a want, and until we can supply, it the practice of surgery must be necessarily more or less imperfect. It is necessary, in my opinion, that the dentist should be an educated physician. [Cheers.] It is necessary that he should understand the structure of the body beyond the teeth. [Cheers.] And I will mention this curious thing about anatomy and quackery. Anatomy in itself would not seem to teach a man much of a practical nature; but I have never yet seen an accomplished anatomist who was a quack, or a quack who was an anatomist. There is an incompatibility between the pursuit of that sublime science, which makes the two incompatible; and if you will fetch before me any man, whether he be a dentist or otherwise, and he will tell me all that is known in reference to anatomy, I will accept that man as a scientific man, without asking him another question. [Laughter and applause.] That is the foundation of all medical science, and therefore you must have that; and you must have, in addition to that, the knowledge of physiology. You must have an especial knowledge of the action of medicines, as they operate upon the human system, not to speak of those other branches of science and accomplishments, outside the profession strictly so-called, which are so necessary to give influence to science, to render man happy, to adorn his life, and make him a gentleman. I would have, in the first place, all the different classes of the medical profession educated in the same schools, to the extent of acquiring this general knowledge of which I have just spoken; and then I would have in each college not only a professor of

diseases of the teeth, but I would have a special professor with regard to a certain number of other branches, at present of the diseases of the eye and ear, and of the nature and treatment of deformities of every kind. These branches have all acquired a degree of development which requires them to be treated from separate chairs; and when the student had got sufficiently accomplished in general principles, I would have him adopt that branch which he proposes to follow, and devote his special attention to it; and I would have these new chairs instituted from time to time as the wants of the community seem to require.

Medical science, which two hundred years ago was imperfect, has at the present time acquired a degree of development which renders it impossible that any one should master it in all its details. No intelligent man devoting his time to it can read all the works connected with it that appear in the English, German and French languages, from one end of the year to the other. It is a physical impossibility. It is a physical labor that he could not endure. How then is he to become acquainted with the details of all the different branches, able to perform every kind of operation, able to prescribe for every kind of disease? In proportion as the science advances, it will become still more extended, and difficult. As each science is perfected, this is the rule. There will be further advances which at the present day it will be unwise, if not impracticable, to define.

I have said that the profession, organized in the manner in which I propose, should be formed of parts not in conflict with each other, but should constitute one harmonious whole. The dentists are capable of exercising a great influence upon society. They are a numerous, enlightened, and I am happy to say, wealthy and influential body of men, and we, with all our prejudices, cannot afford to leave them separate and standing off. [Laughter.] The physicians and surgeons are capable of exercising a great influence in favor of the dentists, and they would, if better informed and more enlightened,

exercise a greater influence than they do, by directing their patients always to apply to them for advice with reference to every question which might arise as to the teeth. This would be an advantage to the dental profession, and they would get it to a much greater extent if they were a recognized part of the medical profession, as they deserve to be. So with all the other different specialties; and whenever I see a man taking up one of these specialties, and for years together undertaking the labor connected with it, I say, "Go ahead, do what you can in that branch of the profession." I do not regard him as in any degree conflicting with my own or any other branch of the profession; I am happy to see it, and I carry my approval to the extent of recognizing the principle in branches of the profession of which I might have, myself, some little doubt.—Such branches as the application of electricity to diseases, about which our information is so imperfect and indefinite. I consider that the application of electricity, by an intelligent man, would probably be of great use, and therefore when a man undertakes that specialty, I think he enters upon a useful work, and one that it is necessary to make a specialty of before it can be relied upon by the profession generally. It is the same with regard to another class of practitioners—the movement-cure men. That term—"Swedish movement cure"—is an unfortunate name. The method of treatment to which it is applied, did not originate in Sweden, but is founded upon the principles of physiology, justified by experience, incapable of being applied by practitioners who have not the necessary knowledge, and promising, in the future, as it shall be developed, the relief of a large class of diseases which have been, heretofore, and which are, at the present time, to a great extent, beyond the reach of surgical treatment.

These, gentlemen, are the essential outlines of the ideas which I wished to present to you. "A word to the wise is sufficient," and therefore I need not dwell upon them. It has given me great pleasure to know that this convention was a

successful convention, and that it was attended by a large number of men from various and distant parts of the country. You have already received a welcome from your own profession here: that welcome was only the expression of the feelings of the general community with regard to yourselves and every other body which comes here for purposes so useful and honorable as yours, and therefore, from the harmony of your session, I have only to hope that it may be useful, interesting and improving, and if you ever need a place to meet in on another occasion, I would take the opportunity of asking you, on behalf of the medical profession and our citizens, to come back to Chicago. [Loud cheers.]

Dr. Cheesebrough, of Toledo, moved:

That the thanks of the convention be unanimously voted to Professor Brainard, of the Rush Medical College, for his assistance to us in our course of life, and that the sense of the convention be expressed by rising.

Professor McQuillen, of Philadelphia, moved as an amendment:

"And that the learned Professor be requested to furnish a copy of his Address for publication in pamphlet form."

Dr. Cheesebrough accepted the amendment, and the motion, as amended, was adopted.

ACUTE PLEURO-PNEUMONIA,

PRODUCING EMPYEMIA AND CONSOLIDATION OF THE LUNGS.

By E. R. TRAVERS, M. D., Amboy, Ill.

March 21st, 1864, I was called to examine a patient, Mr. Harrison Pratt, aged 22, who had been sick about six weeks, and treated by Homœopathic medical skill during this period, when he was given up to die by that fraternity. I found him

laboring with hurried and difficult breathing, a low, fluttering pulse, and suffering with acute pain. The left side of his chest was abnormally enlarged, while the heart occupied the right side; respiratory movement was confined to the right side; the left side was dull on percussion, from the scapular to the lower edge of the false ribs. I discovered fluctuation between the fourth and fifth ribs on the left side, and made it known to him and his friends. I then carefully introduced a grooved needle in a direction obliquely upwards and inwards, just below the angle of the fourth rib, when pus flowed out freely, of a thick, white appearance and fœtid odor. I then introduced the trochar in the same place, and drew off *six quarts of matter*, and injected the cavity with a solution of comp. tinc. of Iodine and rain water, in the proportion of one ounce of the tincture to a pint of water, and painted the surface affected with the comp. tinc. Iodine. I ordered him to take ten drops of the syrup of the Iodide of Iron three times a day, with Cod Liver Oil freely, beef tea, wine and oat-meal porridge.

In two weeks afterwards I again introduced the trochar and drew off *two gallons* of the same fœtid matter, of a somewhat thinner consistence; and in one week later I repeated the operation, and drew off *six quarts* more, which made *five gallons* in all, besides a large quantity that oozed out after each operation for several days. I continued to paint the surface with the comp. tinc. Iodine, also injecting the cavity with the solution above mentioned.

My patient was enabled to walk about the city and ride in a buggy, after the second operation. He expressed himself very thankful and happy after each evacuation of pus. He has continued to improve in health and strength ever since, and has removed to his father's home in the State of Pennsylvania, where he is now enjoying tolerably good health.

MECHANICAL TREATMENT OF DEFORMITIES.

By C. R. BLACKALL, M. D., of Chicago.

Many causes have combined in producing a variety of Deformities which are not amenable to any method of treatment within the scope of the general practitioner. Curvatures of the spine, distortion of the chest, enlargement of the joints, contractions and atrophy of the limbs, are among the number, and have become objects of frequent, if not daily observation, while very little is attempted toward effecting a cure, under the belief that nothing of a permanent character can be accomplished. But it may be abundantly demonstrated that a large majority of such cases are susceptible of cure by mechanical means, if such means are properly and persistently applied.

A method of special practice, originating in Europe some fifty years since, but elaborated and improved through the genius and assiduity of a few American physicians, has become developed into a definite system, based upon and in harmony with physiological laws. Its varied measures are proven to be of such character as will so modify the processes of nutrition that a healthy, in place of a diseased, action will be induced. It has received a popular title which, for want of a better, will probably cling to it, being known as the "Movement Cure." Essentially, it is a series of exercises, of prescribed quality and quantity, administered at the hands of the physician and assistants, with the aid of ingenious apparatus, frequently devised expressly for the particular needs of the case in hand. These exercises, motions, or "movements" vary in character, according to the nature of the disease and the age or condition of the patient. They are equally applicable to childhood and old age, because their degree can be easily adapted to either. In general, it is necessary that at-

tention should be bestowed upon each case every day, and with as much regularity as possible. In its administration, the tact and skill gained alone by daily experience, added to necessary professional attainments, are essential, in order to secure success, because, not only is the muscular effort to be made or induced, but the mental state must be so controlled, that a thorough consentaneousness of action will result. The physician who fails in this latter point must necessarily fail in all, whether in general or special practice, but especially in this, where weeks must often elapse ere the results, perfectly certain to the operator, can be satisfactorily demonstrated to the superficial, though anxiously interested observer, or even to the patient himself.

I need not, perhaps, be more explicit in the matter of details, yet it is evident that such a system cannot be carried out except some specified time and place be devoted to it. Under such conditions the results attained will prove it a valuable agency in the curing of disease, and one that once understood will be fully appreciated by the medical profession, as well as by the large class of sufferers whom it proposes to relieve.

We are frequently under a necessity for prescribing EXERCISE for our patients, indeed, very often it is the only thing necessary in order to secure return of Health, but how, when and in what degree, it shall be used, are not easy to direct, and we are left to a few general principles, the whole matter being subject rather to the judgment of the patient than of the physician, hence the frequent failures in this direction. Yet the exercise must be obtained in some way, if the patient ever fully recovers. But it is not practicable for the general practitioner to stop, in each case, and administer that which may be urgently needed, because of the numerous demands upon his time, as well as for other reasons. Here, then, occurs the need of a specialty, and the result is found in a system which does not assume to be a universal panacea, but really is a valuable adjunct, if not certain means, in very many instances, and one which leading members of the profession not

only pronounce rational, but eminently valuable, and successful.

I beg to submit a few recent cases, by way of illustration: Mrs. ——, under the medical care of a distinguished gentleman of this city, was brought to me by her physician for treatment. The right arm and hand were much atrophied, and the wrist and hand in a state of rigidity, in consequence of Inflammatory Rheumatism. Within two months the use less members were fully restored, both as regards size and the mobility of the joint.

Miss ——, in a condition of great general debility, and with well-marked lateral curvature of the spine, became my patient in April, 1864. She returned home in July following, relieved of her deformity, and able to resume her duties as a teacher.

Master Willie ——, aged three years. Angular curvature of the spine, in the cervical region. Head drawn sharply backward. Very little motion, in any direction, of the head upon its axis. Extreme sensitiveness of the whole nervous system. Three months time sufficed to produce an entire cure.

Miss ——, aged eight years. Right leg atrophied, ankle joint immovable. Commenced in April last, and is still under treatment. No longer needs any artificial support to the limb, which is growing finely and strong, and every indication present of a speedy and permanent cure.

I have given these few cases out of many, with the hope of calling the attention of the profession to what can be done for this large class of unfortunates. It is not possible to intelligently describe the peculiar processes adopted in each, but I shall be happy to give all desired information, on personal application, or by letter, if practicable.

79 DEARBORN STREET.

CHLOROFORM.

Chloroform, when administered by inhalation during the period of Menstruation, Dr. Kidd affirms, may have the effect of inducing the belief that an assault has been attempted in a criminal way, whilst under its influence. Now, although we can not, from our own experience, connect with certainty the fact of Menstruation with this effect in more than a single instance, we are cognizant of three well-marked cases of the kind occurring in this city, and rumor speaks of several others. We were well acquainted with an elderly gentleman whose wife was so firmly convinced that a dentist had endeavored to take improper liberties with her whilst under the influence of chloroform, that he had much difficulty in convincing her that her husband had not left her side during the whole time. We also knew of a young girl who, after an important operation, during which this anæsthetic was administered, positively affirmed that an attempt had been made upon her chastity by the chief surgeon; and from which trouble might have arisen had not other surgeons been present, and her friends been in the adjoining room during its performance.

The third, a case well known to the profession, in which a respectable woman, whilst menstruating, was put under the influence of chloroform for the abstraction of a tooth, when she afterwards suffered so strongly from a similar illusion that the husband being fully persuaded of its truthfulness, caused the prosecution and imprisonment of the dentist for assault. He was acquitted of the crime, but received a reprimand from the judge for having administered an anæsthetic without the presence of witnesses.

This case elicited much comment at the time, and has had the effect ever since of rendering our physicians more than ordinarily cautious in the employment of chloroform in the absence of the patient's own friends.—*Canada Lancet.*

THE AMERICAN DENTAL ASSOCIATION.

The recent meeting of this Organization drew together a large number of the most eminent Dentists in America, and among them we were pleased to meet Dr. Taft, so long known to us through the able columns of the *Dental Register of the West*, and Dr. McQuillen, more recently associated in the editorship of the *Dental Cosmos*. The sessions were spirited, and occupied in interesting discussions on subjects of practical and scientific importance to the Dental Profession. Several lectures were delivered before the Association, and it gives us great pleasure to be able to present Dr. Brainard's address to our readers.

The hospitals and other points of interest in the city were visited, while Drs. Allport, Davis, and Miller gave very pleasant evening entertainments, and for a time the Association was most happily animated by a social, rather than professional spirit.

Had we the data from which to make it, we should be glad to give an abstract of the transactions, for we have a high regard for the Dental profession, and feel under great obligations to its members for what they have done to beautify the countenance of man, mitigate his pains, and augment the pleasures of his life.

PROCEEDINGS OF THE DEWITT CO. MEDICAL SOCIETY.

The Society met in quarterly session at the office of Dr. Madden, in Clinton, on Monday, the 31 day of July. The President, Dr. Tyler, in the chair.

The minutes of the last meeting were read and approved. Drs. Adams and Madden, the essayists, being unprepared, were requested to read their essays at the next meeting. Dr.

Davis, of Wapello, exhibited to the Society a specimen of monstrosity, giving a full history of the case, for which he received the thanks of the Society.

Dr. Adams made a verbal report of three cases of cerebro-spinal meningitis, which led to a discussion upon the pathology and treatment of this disease, in which most of those present partook.

Dr. Lewis reported an interesting case of diphtheria of a child two years old, giving treatment and favorable result, which called up another animated discussion, in which most of the members participated.

Gunshot Wounds was chosen as the subject for discussion at the next meeting.

On motion, it was ordered that the secretary furnish a copy of these proceedings to the *Chicago Medical Journal* and *Chicago Medical Examiner* for publication.

On motion, the Society then adjourned to meet in semi annual session in Clinton, on the 1st Monday in October, at 10 o'clock, A. M.

At this meeting we had the extreme pleasure of taking by the hand our esteemed friend and fellow member, Dr. John Wright, late surgeon of the 107th Reg. Ill. Vol. Inf., who has just returned from the field, after serving the country creditably for three years. CHRISTOPHER GOODBRAKE, M.D., *Sec.*

PROCEEDINGS OF THE FOX RIVER VALLEY MEDICAL ASSOCIATION.

The Association met in the Common Council room in the city of Elgin, on Monday afternoon, July 3d, 1865. The president, Dr. Tefft, in the chair.

Present, Drs. Tefft, Howell, Burdick, Woodworth, Tyler, Jassoy, Bartels, Hawley, Eddy, Reed, and Young. Minutes of last meeting read and approved. Dr. Howell proposed Dr. John Jassoy for membership.

On motion of Dr. Young, Dr. Jassoy was elected, when he came forward, paid the admission fee, signed the constitution, and duly became a member of this Association.

Dr. Hawley announced that the Chicago *Republican* refused to publish *criminal* quack advertisements, and that the Ohio State Medical Association had passed resolutions commending its course, and moved that a committee be appointed by the chair to draft resolutions expressive of the sense of this Association. The President appointed Drs. Hawley, Howell, and Woodworth such committee.

Dr. Tefft read an interesting paper giving an account of a case of cancer of the stomach that had occurred in his practice recently. Dr. Burdick reported a case of malignant tumor of the jaw that was successfully removed by an operation. Dr. Young reported an interesting case of abscess of the lungs in a child. The child recovered after a protracted illness.

Dr. Tefft presented a patient with inflammation and swelling of the inferior extremities of long standing. Quite a discussion ensued as to the pathology of the case, which was participated in by Drs. Howell, Jassoy, Tefft, Hawley, Tyler and Young.

The committee on resolutions reported as follows:

Whereas, the admission by the public press of advertisements of an immoral character, inviting the commission of crime by producing abortion and preventing pregnancy for a consideration, in the shape of pills, potions, drops, etc., is terribly demoralizing and destructive of health and life, we therefore hail with pleasure the promise of the Chicago *Republican* that they will not admit advertisements of this character into their paper; there ore—

Resolved, that the moral integrity and noble stand of its proprietors in excluding this class of advertisements from its columns merits our highest approbation, and we hereby pledge ourselves to take and recommend only such papers as best conform with the principles of morality on this subject, believing that we, as guardians of the public health and conservators of public morals, can not too strongly reprobate the

publication in religious papers of advertisements (for money,) the object of which is clearly the prevention of pregnancy, or the commission of child murder, to commit crime, pander to lust, and that too frequently at the expense of the mothers, as well as their offspring.

Resolved, that the wide-spread influence of a certain looseness of sentiment on this subject should be a matter of great alarm to the philanthropic physician, as well as the parent, and that every public print that will pander to this species of crime, is wickedly suicidal of the best interests of our race, and unworthy to be received into family circles or the patronage of honest men.

Resolved, that we deem those druggists who advertise and sell such preparations as *particeps criminis;* we hereby earnestly recommend them to discard them from their stocks and refuse to furnish them.

The report was accepted and adopted, and the Secretary instructed to publish them in the Chicago Medical Journals, *Republican* and Aurora *Beacon.*

Dr. Burdick moved that a vote of thanks be tendered the proprietors of the Aurora *Beacon* for their generosity and promptness in publishing the proceedings of our Association. The resolution was adopted unanimously.

On motion of Dr. Burdick, the Association adjourned to meet in the common council room in the city of Aurora, on the 1st Monday of October next, at 1 o'clock, P. M.

D. W. Young, M. D., Sec. Jos. Tefft, M. D., Pres.

SUBMARINE TELEGRAPHS.

For 22 or more years, experiments on this subject have been made upon both sides of the Atlantic. In 1843, Samuel Colt, of revolver fame, laid and operated a cable running from the city of New York to Long Island in the bay. In 1856, connected coils of wire, two thousand miles long, covered with gutta percha, transmitted signals to the number of two hundred and seventy per minute, but, upon being submerged, the signals decreased in intensity and grave defects were discovered which required time and study for correction.

The following table, prepared by scientific observers, and compared with other tables extant, gives, perhaps, as reliable figures as have been prepared:

Date when laid	From	To	Time the Cables have been working	Depth of Water in Fathoms	Length of Cable in Statute Miles	Length of Insulated Wire in Statute Miles
			Yrs.			
1851	Dover	Calais	12	....	27	108
1853	Denmark	Across Belt	10	....	18	54
1853	Dover	Ostend	10	....	80½	483
1853	Frith of Forth		10	....	6	24
1853	Portpatrick	Donaghadee	10	....	25	150
1853	Across the River Tay		10	....	2	8
1854	Portpatrick	Whitehead	9	....	27	162
1854	Sweden	Denmark	9	14	12	36
1854	Italy	Corsica	9	325	110	660
1854	Corsica	Sardinia	9	30	10	60
1855	Egypt		8	....	10	40
1855	Italy	Sicily	8	20	5	15
1856	Newfoundland	Cape Breton	7	360	85	85
1856	Prince Edward	New Brunswick	7	14	12	12
1856	Strait Canso	Cape Breton, N. S.	7	....	1½	4½
1857	Norway	Across Fiords	6	300	40	49
1857	Across the mouths of the	Danube	6	....	3	3
1857	Ceylon	Mainland India	6	...	30	30
1858	Italy	Sicily	5	60	8	8
1858	England	Holland	5	30	140	560
1858	England	Hanover	5	30	280	500
1858	Norway	Across Fiords	5	300	16	16
1858	South Australia	King's Island	5	45	140	140
1858	Ceylon	India	5	45	30	30
1859	Alexandria		4	....	2	8
1859	England	Denmark	4	30	368	1104
1859	Sweden	Gotland	4	80	64	64
1859	Folkestone	Boulogne	4	32	24	144
1859	Across Rivers	In India	4	....	10	10
1859	Malta	Sicily	4	79	63	60
1859	England	Isle of Man	4	30	36	36
1859	Suez	Jubal Island	4	....	220	220
1859	Jersey	Pirou, France	3	15	21	21
1859	Tasmania	Bass Strait	3½	..	240	240
1860	France	Algiers	2½	1585	520	520
1860	Corfu	Otranto	2½	1000	90	90
1860	Denmark	(Great Belt)	3	18	28	126
1860	Dacca	Pegu	3	.	116	116
1860	Barcelona	Mahon	3	1400	180	180
1860	Minorca	Majora	3	200	35	70
1860	Iviza	Majorca	3	500	74	148

Date when Laid	From	To	Time the Cables have been working	Depth of Water in Fathoms	Length of Cable in Statute Miles	Length of Insulated Wire in Statute Miles
1860	St. Antonio	Iviza	3	450	76	152
1861	Norway	Across Foirds	2¼	300	16	16
1861	Toulon	Corsica	2¼	1550	185	195
1861	Holyhead	Howth, Ireland	2	....	64	64
1861	Malta	Alexandria	2½	420	1535	1535
1861	Newhaven	Dieppe	2	...	80	320
1862	Pembroke, W	Wexford, Ireland	1½	28	63	252
1862	Frith of Forth		1	....	6	24
1862	England	Holland	0½	30	130	520
1862	Across the River Tay		1	...	2	8
1863	Sardinia	Sicily	0½	1200	243	243
	Total				5625	9783½

Of the cables named in the above table, but few can be called successful, and the application of electrical science to submarine routes of communications is comparatively in its infancy.

The three great attempts at success which have proved their claim to energy, perseverance and glory, even in spite of their want of success, are the Atlantic cables of 1857, 1858 and 1865, each conducted by our countryman, Cyrus W. Field.

The trial of 1857 was made by the Niagara and Agamemnon, which vessels each took half of the cable. The former was to lay the Irish half and the latter the American. On the 5th of August the shore end was laid at Valentia. On the 11th, the Niagara, after laying 334 miles, parted the cable in a swell, leaving but 759 miles on board of her. There were on board the Agamemnon 1,847 miles, or a bare surplus on the two vessels of 207 miles over 1,634 miles, the entire distance between the two countries, hence the attempt was abandoned.

In 1858, the same vessels met in mid-ocean, spliced their two ends of cable, and sailed apart forty miles, when, on the 26th of June, the cable parted. Two days after they again met, united their cables, and after laying 145 miles, the cable again parted. The vessels now recoaled at Queenstown, and again went to mid-ocean and began anew their work, this time with entire success. The *cable was laid*, and the possibility

of communication between the continents was demonstrated. We all remember how the dispatch of Cyrus W. Field on the 5th day of August, 1858, electrified the country, and how the people were fairly beside themselves with joy and admiration.

For nearly two months the two worlds talked to each other with mouth to ear. One hundred and twenty-nine messages were sent from Valentia to New England, and two hundred and seventy-one in the other direction. Thus were four thousand three hundred and fifty-nine words exchanged. The message of Queen Victoria to the President contained ninety-nine words, and occupied in its reception at Newfoundland sixty-seven minutes. High hopes were formed but these were blighted. The fate of the cable of 1858 is thus told by an exchange:

"On September 24th, DeSauty verified the worst apprehensions that had been formed of the failure of the cable, by informing the country that 'nothing intelligible had been received from Valentia since September 1st.' This could hardly have resulted from any injury to the cable, for afterwards, on October 2d, in the course of their experiments, a last communication was received and imperfectly read as follows: 'Two hundred and forty t——k——Daniells now in circuit.' It afterwards appeared that the full message was 'Two hundred and forty trays and seventy-two liquid Daniells now in circuit.' The power thus employed was one thousand times what would be required in an ordinarily well insulated conductor to give perfect signals. Further efforts were therefore abandonod as hopeless. The cost of the cable thus laid was $1,256,250—the total expenditures of the company were $1,834,500."

The cable of 1865 was 2600 miles long and weighed 5,000 tons, and is one and one-eighth inches in diameter.

"The 'core,' or conductor is made of seven fine copper wires twisted into a single strand, add insulated by a compound known as Chatterton's. Around this 'core' are four layers of gutta percha, insulated with the same compound, and in turn enclosed by eleven strong iron wires, each one of which is carefully wound with Manilla thread, and saturated with tar, thus at once protecting the gutta percha and adding strength to the cable. Its strength is equal to a bearing strain of eleven and three-quarters tons. As compared with the tensile strength of the cable of 1858, it is several times greater, while the electrical tests show the present wire to be infinitely superior to that of the cable of 1858.—*N. W. Christian Advocate.*

BOOK NOTICES AND REVIEWS.

Contributions to Practical Surgery, By W. H. VanBuren, M. D., Professor of Anatomy, University of New York. Formerly one of the Surgeons of the New York Hospital, of the Bellevue Hospital, and Vice-President of the New York Academy of Medicine, Consulting Surgeon to St. Vincent's Hospital and the Woman's Hospital, Member of the Pathological Society and the Medical and Surgical Society of New York, Member of the United States Sanitary Commission, &c, &c.

We are gratified to acknowledge the receipt of Prof. VanBuren's contributions to Practical Surgery, issued in pamphlet form of 208 pages.

The object of the pamphlet is very concisely set forth in the preface: "The following Surgical papers have been selected from the professional periodicals in which they were orginally published, and thrown together in the present form, in the hope that they may prove useful to those interested in the pursuit of practical Surgery. Their only merit consists in the fidelity of the record they present of the results of actual practice; and the Author regrets that the unremitting claims of daily professional duty must be proffered in explanation of their obvious imperfections."

The following embrace some of the most important cases: Amputation at the Hip-joint by a modified process, the chief merit of which is rapidity of execution. "Amputation at the Hip-joint is one of the few operations in Surgery in which rapidity of execution would seem to be absolutely essential to success." The "modified process" is a combination of the circular and flap operations, is minutely and clearly described and illustrated by an elegant wood-cut.

Cases of Tracheotomy with observations. Quite a number of operations are given, which were performed for various causes, viz.: croup, foreign bodies in air passages, syphilitic ulceration of larynx, etc., inguinal aneurisms, fibrous tumor of the left ovarium, diseases of the rectum, vesical calculus, etc. The case of artero-venous aneurism with statistics is replete with useful information, especially in regard to the surgical practice which it involves.

In fact, each and every case is full of useful information of a practical character, and after a careful perusal of them, we can honestly recommend the pamphlet to all those practising surgery, especially the junior members of the profession.

A. J. B.

Annual Report of the Provost-Marshal General, Nov. 15th, 1864. With an Appendix embracing the Medical Report of J. H. Baxter, M. D., Chief Surgeon Provost-Marshal General's Bureau.

Surgeon Baxter has placed the medical profession under lasting obligation in contributing to medical science, such a variety of invaluable statistical information concerning the diseases and infirmities of mankind.

If space would admit we would gladly reproduce the entire series of tables, 22 in number. The Report is an elaborate and carefully condensed document, and is an honor to the Bureau from which it proceeds. Every page attests to the ability, industry and conscientiousness of the compiler. It is a national record, and as each succeeding year carries us farther and farther from the war, periods of prosperous commerce and peaceful civic employments preparing the way for the advent of the Great American Historian, who is yet to come, and narrate faithfully and with a graphic pen, the record of the tremendous Revolution through which we have so triumphantly passed, this Report, and those which have preceded it, will be of inestimable value.

We cannot conclude our brief notice of this important document without adding our mite to the general meed of praise so freely awarded to Surgeon Baxter, wherever his name and services are known. His knowledge of his profession is only equalled by his executive ability, and those courteous and kind actions which ennoble and befit a gentleman and an American officer.

F.

Graduates of Medical Colleges, Session of 1864–5.—Jefferson Medical College, 136; University of Pennsylvania, 117; Rush Medical College, 108; Bellevue Hospital Medical College, 93; College of Physicians and Surgeons, 79; Long Island College Hospital, 52; University of Michigan, 51; Buffalo Medical College, 50; Ohio Medical College, 46; Albany Medical College, 45; Massachusetts Medical College, 42; Charity Hospital Medical College, 38.

MARRIED.—In Wyanet, Ill., on the 15th of July, by the Rev. Wm. Foreman, F. C. ROBINSON, M. D., to Miss MARY E. HULL, both of that place.

At the residence of the bride's parents, July 11th, by Rev. Isaac Linebarger, A. M., GEORGE W. BEGGS, M. D., of Naperville, and Miss LILLA SIMS, of Plainfield.

Gen. Tom Thumb, his Wife and Baby.—Mr. and Mrs. Stratton, (General Tom Thumb and his wife) have been giving receptions at Calcaldi's Hotel, Dover street, Picaadilly. The General looks remarkably well, and has improved in appearance since we last saw him. He is now twenty-seven years old. His wife is smaller than the General, is dark, with very well-defined features, indeed exceedingly pretty, good figure, and inclined to *embonpoint.* Her age is twenty-three. The baby was also exhibited, which is now twelve months old, weighing seven pounds and three quarters. The diminutive pair seem very proud of their offspring; whether it will be of the same lilliputian stamp we cannot at present say. Mrs. Stratton's sister, aged twelve, was also present. She is smaller still than the General or his wife.—*Lancet.*